

## CHAPTER 60 - SPECIAL REQUIREMENTS

**60.05        DESIGN REVIEW DESIGN PRINCIPLES, STANDARDS AND GUIDELINES** [ORD 4332; November 2004]

**60.05.05        Purpose.** The following design principles, standards and guidelines shall be met by new development, and redevelopment where applicable, throughout the City in the following zoning districts:

1. Attached residential developments in the R-3.5, R-2 and R-1 zones and in planned unit developments in the R-10, R-7, R-5 and R-4 zones when attached residential developments are proposed,
2. Conditional uses in residential zoning districts where a new building or major remodeling of an existing building is proposed and public parks,
3. Development in multiple-use districts,
4. Commercial office, retail, and service developments, and
5. Industrial developments.

**60.05.10.        Design Principles.** The following design principles are general statements to guide the development of the built environment, the appearance of that development, and the affect of that development to the existing surroundings. The design guidelines and standards implement these principles.

1. **Building Design and Orientation.** Design buildings that enhance the visual character of the community and take into account the surrounding neighborhoods, provide permanence, and create a sense of place. In residential, commercial and multiple-use districts, design buildings that contribute to a safe, high quality pedestrian-oriented streetscape.

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- 2. Multiple Use District Building Orientation and Design.** Locate buildings so they are conveniently and safely accessible from on-site and off-site sidewalks and streets, and so buildings near the edge of a right of way provide a high quality, pedestrian oriented streetscape, contribute to safety by offering “eyes on the street” and promote pedestrian safety and use. Provide a pedestrian-friendly environment through building and site design treatments that may vary in nature and degree depending on the character of the urban area, the characteristics of the street, and the type of use and development proposed.
- 3. Circulation and Parking Design.** Provide integrated multi-modal circulation and parking improvements that are safe and convenient, connect to surrounding neighborhoods and streets, and serve the needs of development.
- 4. Landscape, Open Space, and Natural Areas Design.** Create landscape areas that contribute to the aesthetics of the community, conserve, protect, enhance or restore natural features and the natural environment, provide an attractive setting for buildings, and provide safe, interesting outdoor spaces for residents, customers, employees, and the community. Whenever possible, utilize native vegetative species which are disease and drought tolerant.
- 5. Lighting Design.** Provide exterior lighting for buildings, parking lots, pedestrian pathways, vehicular areas, pedestrian plazas, public open spaces to ensure public safety and convenience, and to minimize excessive illumination on environmentally sensitive areas, adjoining properties, and streets.

**60.05.15. Building Design and Orientation Standards.** Unless otherwise noted, all standards apply in all zoning districts.

- 1. Building articulation and variety.**
  - A. Residential buildings in residential zones shall be limited in length to two hundred (200) feet.

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- B. Buildings visible from and within 200 feet of an adjacent public street except for manufacturing, assembly, fabricating, processing, packing, storage and wholesale and distribution activities which are the principle use of a building in industrial districts where elevations visible from and within 100 feet of an adjacent public street, and elevations that include a primary building entrance or multiple tenant entrances, excluding roofs, shall have a minimum portion of the elevation devoted to permanent architectural features designed to provide articulation and variety. These permanent features include, but are not limited to windows, bays and offsetting walls that extend at least eighteen inches (18”), recessed entrances, loading doors and bays, and changes in material types. Changes in material types shall have a minimum dimension of two feet and minimum area of 25 square feet. The percentage of the total square footage of elevation area is:
  - 1. Thirty (30) percent in residential zones, and all uses in multiple-use and commercial zones.
  - 2. Fifty (50) percent in commercial zones where glazing is less than thirty five (35) percent pursuant to Section 60.05.15.8.A.3.
  - 3. Fifteen (15) percent in industrial uses.
- C. The maximum spacing between permanent architectural features shall be no more than:
  - 1. Forty (40) feet in residential zones, and all uses in multiple-use, and commercial zones.
  - 2. Sixty (60) feet in industrial zones.

**2. Roof forms.**

- A. All sloped roofs exposed to view from adjacent public or private streets and properties shall have a minimum 4/12 pitch.

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- B. Sloped roofs on residential uses in residential zones, and all uses in multiple-use and commercial zones, shall have eaves, exclusive of rain gutters, that must project from the building wall at least twelve (12) inches.
  - C. All flat roofs with a slope of less than 4/12 pitch shall be architecturally treated or articulated with a parapet wall that must project vertically above the roof line at least twelve (12) inches.
  - D. When an addition to an existing structure or a new structure is proposed in an existing development, the roof forms for the new structures shall have similar slope and be constructed of the same materials as existing roofs.
  - E. Smaller feature roofs are not subject to the standards of this Section.
- 3. Primary building entrances.** Primary entrances, which are the main point(s) of entry where the majority of building users will enter and leave, shall be covered, recessed, or treated with a permanent architectural feature in such a way that weather protection is provided. The covered area providing weather protection shall be at least six (6) feet wide and four (4) feet deep.
- 4. Exterior building materials**
- A. For residential uses in residential districts, a minimum of seventy-five (75) percent of each elevation that is visible from and within 200 feet of a public street or a public park, public plaza or other public open space, and on elevations that include a primary building entrance or multiple tenant entrances shall be double wall construction.

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- B. For conditional uses in residential zones and all uses in multiple-use, commercial and industrial zones, except for manufacturing, fabricating, processing, packing, storage and wholesale and distribution facilities which is a principle use of the site in industrial zones, a maximum of thirty (30) percent of each elevation that is visible from and within 200 feet of a public street or a public park, public plaza or other public open space, and on elevations that include a primary building entrance or multiple tenant entrances may be plain, smooth, unfinished concrete, concrete block, plywood and sheet pressboard. In the case of manufacturing, fabricating, processing, packing, storage and wholesale and distribution facilities which is a principle use of the site in industrial zones, this standard shall apply to the primary elevation that is visible from and within 200 feet of a public street or a public park, public plaza or other public open space. The remaining elevation area for all applicable uses in all applicable zones shall be architecturally treated. Appropriate methods of architectural treatment shall include, but are not limited to, scoring, changes in material texture, and the application of other finish materials such as wood, rock, brick or tile wall treatment.
- C. For conditional uses in residential zones and all uses in multiple use and commercial districts, plain, smooth, exposed concrete and concrete block used as foundation material shall not be more than three (3) feet above the finished grade level adjacent to the foundation wall, unless pigmented, textured, or both. In industrial districts, foundations may extend up to four (4) feet above the finished grade level.

**5. Roof-mounted equipment.**

- A. All roof-mounted equipment shall be screened from view from adjacent streets or adjacent properties in one of the following ways:
  - 1. A parapet wall; or
  - 2. A screen around the equipment that is made of a primary exterior finish material used on other portions of the building; or

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3. Setback from the street-facing elevation such that it is not visible from the public street(s).

B. The vertical measuring distance for required screening shall be measured at five (5) feet above the finished or existing grade of the abutting property or public right-of-way adjacent to the development site's front yard setback for a distance of one hundred (100) lineal feet measured outward from the development site's front property line. Once the vertical measuring distance is established for the site's front yard, this same vertical measuring distance shall be applied to all sides of the development site's perimeter property lines.

C. Solar panels, dishes/antennas, pipes, vents, and chimneys are exempt from this standard.

**6. Building location and orientation along streets in Multiple Use and Commercial zoning districts.**

A. Buildings in Multiple Use zones shall occupy a minimum public street frontage as follows:

1. 50 percent of the street frontage where a parcel abuts a Class 1 Major Pedestrian Route.

2. 35 percent of the street frontage where a parcel abuts a Class 2 Major Pedestrian Route.

B. Buildings in Commercial zones shall occupy a minimum of 35 percent public street frontage where a parcel exceeds 60,000 gross square feet. These buildings shall be located no further than 20 feet from the property line. The area between the building and property line shall be landscaped to standards found in Section 60.05.25.3.B or 60.05.25.3.C.

C. Buildings on corner lots of multiple Major Pedestrian Routes shall be located at the intersections of the Major Pedestrian Routes. Where a site has more than one corner on a Major Pedestrian Route, this requirement must be met at only one corner.

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- D. All buildings that abut a Class 1 Major Pedestrian Route shall have at least one primary building entrance oriented toward, or with a direct pedestrian connection to an abutting street or pedestrian way. Where there is more than one abutting Class 1 Major Pedestrian Route, the primary entrance shall have a reasonably direct pedestrian connection to a minimum of one abutting Class 1 Major Pedestrian Route or shall be oriented to a Class 1 Major Pedestrian Route corner. Pedestrian connections shall:
  - 1. Be no more than 100 feet long (between the building entrance and street), and
  - 2. Shall not cross vehicular circulation and parking areas.
- E. Secondary entrances may face on streets, off-street parking areas, or landscaped courtyards.

**7. Building scale along Major Pedestrian Routes**

- A. The height of any portion of a building at the property line as measured from the finished grade at the property line abutting a Major Pedestrian Route shall be a minimum of twenty- two (22) feet and a maximum of sixty (60) feet. The City shall authorize heights greater than sixty (60) feet if the portion of a building that is greater than sixty (60) feet in height is twenty (20) feet from the property line and the proposed height is consistent with Section 20.20.50. for the specific zoning district.
- B. The maximum heights specified in Section 20.20.50 shall not be exceeded, unless separately authorized through an adjustment or variance application.

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**8. Ground floor elevations on commercial and multiple use buildings.**

- A. Except those used exclusively for residential use, ground floor elevations visible from and within 200 feet of a public street, Major Pedestrian Route, or a public park, public plaza or other public open space, and elevations that include a primary building entrance or multiple tenant entrances, shall have the following minimum percent of the ground floor elevation area permanently treated with windows, display areas or glass doorway openings.
1. Class 1 Major Pedestrian Routes: Fifty (50) percent.
  2. Class 2 Major Pedestrian Routes: Thirty-five (35) percent.
  3. Buildings on parcels in excess of 25,000 gross square feet within a Commercial zoning district: Thirty-five (35) percent.

Less glazing may be provided in a commercial zoning district when increased building articulation and architectural variety is provided pursuant to Section 60.05.15.1.B.2 of this Code.

For the purpose of this standard, ground floor elevation area shall be measured from three (3) feet above grade to ten (10) feet above grade the entire width of the elevation. The ground floor elevation requirements shall be met from grade to twelve (12) feet above grade.

- B. Except those used exclusively for residential use, ground floor elevations that are located on a Major Pedestrian Route, sidewalk, or other space where pedestrians are allowed to walk shall provide weather protection to the following minimum percent of the length of the elevation.
1. Class 1 Major Pedestrian Routes: Fifty (50) percent.
  2. Class 2 Major Pedestrian Routes: Thirty-five (35) percent.



**60.05.20. Circulation and Parking Design Standards.** Unless otherwise noted, all standards apply in all zoning districts.

- 1. Connections to the public street system.** Connections shall be provided between the on-site circulation system and adjacent existing and planned streets as specified in Tables 6.1 through 6.6 and Figures 6.1 through 6.23 of the Comprehensive Plan Transportation Element.
- 2. Loading areas, solid waste facilities and similar improvements.**
  - A. All on-site service areas, outdoor storage areas, waste storage, disposal facilities, transformer and utility vaults and similar activities shall be located in an area not visible from a public street, or shall be fully screened from view from a public street.
  - B. Except for manufacturing, assembly, fabricating, processing, packing, storage and wholesale and distribution activities which are the principle use of a building in industrial districts, all loading docks and loading zones shall be located in an area not visible from a public street, or shall be fully screened from view from a public street.
  - C. Screening from public view for service areas, loading docks, loading zones and outdoor storage areas, waste storage, disposal facilities, transformer and utility vaults and similar activities shall be fully sight-obscuring, shall be constructed a minimum of one foot higher than the feature to be screened, and shall be accomplished by one or more of the following methods:
    1. Solid screen wall constructed of primary exterior finish materials utilized on primary buildings,
    2. Solid hedge wall with a minimum ninety-five (95) percent opacity within two (2) years.
    3. Solid wood fence
  - D. Screening from public view by chain-link fence with or without slats is prohibited.
  - E. Screening of loading zones may be waived in commercial and multiple-use districts if the applicant demonstrates the type and size of loading vehicles will not detract from the project's aesthetic appearance and the timing of loading will not conflict with the hours or operations of the expected businesses.

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**3. Pedestrian circulation.**

- A. Pedestrian connections shall be provided that link to adjacent existing and planned pedestrian facilities as specified in Tables 6.1 through 6.6 and Figures 6.1 through 6.23 of the Comprehensive Plan Transportation Element, and to the abutting public street system and on-site buildings, parking areas, and other facilities where pedestrian access is desired. Pedestrian connections shall be provided except when one or more of the following conditions exist:
1. Where physical or topographic conditions, such as a grade change of ten (10) feet or more at a property line to an adjacent pedestrian facility, make connections impractical,
  2. Where uses including manufacturing, assembly, fabricating, processing, packing, storage and wholesale and distribution activities which are the principle use of a building in industrial districts occur,
  3. Where on-site activities such as movement of trucks, forklifts, and other large equipment would present potential conflicts with pedestrians, or
  4. Where buildings or other existing development on adjacent lands physically preclude a connection now or in the future.
- B. A reasonably direct walkway connection is required between primary entrances, which are the main point(s) of entry where the majority of building users will enter and leave, and public and private streets, transit stops, and other pedestrian destinations.
- C. A reasonably direct pedestrian walkway into a site shall be provided for every 300 feet of street frontage or for every eight aisles of vehicle parking if parking is located between the building and the street. A reasonably direct walkway shall also be provided to any accessway abutting the site. This standard may be waived when topographic conditions, man-made features, natural areas, etc. preclude walkway extensions to adjacent properties.

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- D. Pedestrian connections through parking lots shall be physically separated from adjacent vehicle parking and parallel vehicle traffic through the use of curbs, landscaping, trees, and lighting, if not otherwise provided in the parking lot design.
- E. Where pedestrian connections cross driveways or vehicular access aisles a continuous walkway shall be provided, and shall be composed of a different paving material than the primary on-site paving material.
- F. Pedestrian walkways shall have a minimum of five (5) foot wide unobstructed clearance.
- G. Walkways shall be paved with scored concrete or modular paving materials.
- H. In the event that the Americans with Disabilities Act (ADA) contains stricter standards for any pedestrian walkway, the ADA standards shall apply.

**4. Street frontages and parking areas.**

- A. Surface parking areas abutting a public street shall provide perimeter parking lot landscaping which meets one of the following standards:
  - 1. A minimum five (5)-foot wide planting strip between the right-of-way and the parking area. Pedestrian walkways and vehicular driveways may cross the planting strip. Trees shall be planted at a minimum 2 1/2 inch caliper at a maximum of thirty (30) feet on center. Planting strips shall be planted with an evergreen hedge that will provide a 30-inch high screen and fifty (50) percent opacity within two years. The maximum height shall be maintained at no more than thirty-six (36) inches. Areas not covered by trees or hedge shall be landscaped with live ground cover. Bumper overhangs which intrude into the planting strip shall not impact required trees or hedge; or

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2. A solid wall or fence 30 to 36 inches in height parallel to and not nearer than four (4) feet from the right-of-way line. The area between the wall or fence and the street line shall be landscaped with live ground cover. Pedestrian walkways and vehicular driveways may cross the wall or fence.

**5. Parking area landscaping.**

- A. Landscaped planter islands shall be required according to the following:
  1. Residential uses in residential zones, one for every eight (8) contiguous parking spaces.
  2. All uses in multiple-use and commercial zones, one for every ten (10) contiguous parking spaces.
  3. All conditional uses in residential zones and industrial uses, one for every twelve (12) contiguous parking spaces.
- B. The island shall have a minimum area of 70 square feet, and a minimum width of 6 feet, and shall be curbed to protect landscaping. The landscaped island shall be planted with a tree having a minimum mature height of 20 feet. If a pole-mounted light is proposed to be installed within a landscaped planter island, and an applicant demonstrates that there is a physical conflict for siting the tree and the pole-mounted light together, the decision-making authority may waive the planting of the tree, provided that at least seventy-five (75) percent of the required islands contain trees. Landscaped planter islands shall be evenly spaced throughout the parking area.
- C. Linear raised sidewalks within the parking area connecting the parking spaces and on-site building(s) may be counted towards the total required number of landscaped islands, provided that all of the following is met:
  1. Trees are spaced a maximum of 30 feet on center on a minimum of one side of the sidewalk.
  2. The minimum unobstructed sidewalk width is five feet.
  3. The sidewalk is separated from the parking area by curbs, bollards, or other means on both sides.

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4. Trees are located in planting area with groundcover or planted in covered tree wells.
    5. Trees within the linear sidewalk area shall constitute no more than 50 percent of the total required number of trees within required landscaped planter islands. All remaining required trees shall be located within landscaped planter islands.
  - D. Trees planted within required landscaped planter islands or the linear sidewalk shall be of a type and species identified by the City of Beaverton Street Tree List or an alternative approved by the City Arborist.
- 6. Off-Street parking frontages in Multiple-Use Districts.** Off-street surface parking areas shall be located to the rear or side of buildings. Surface parking areas located adjacent to public streets are limited to a maximum of:
- A. 50% of the street frontage along Class 1 Major Pedestrian Routes, and
  - B. 65% along Class 2 Major Pedestrian Routes.
- 7. Sidewalks along streets and primary building elevations in Multiple-Use and Commercial Districts.**
- A. A sidewalk is required on all streets. The sidewalk shall be a minimum of ten (10) feet wide, and provide an unobstructed path at least five (5) feet wide.
  - B. A sidewalk is required along building elevations that include a primary building entrance, multiple tenant entrances or display windows. The sidewalk shall be a minimum of ten (10) feet wide, and provide an unobstructed path at least five (5) feet wide at building entrances, and along elevations containing display windows. Sidewalks shall be paved with scored concrete or modular paving materials. If adjacent to parking areas, the sidewalk shall be separated from the parking by a raised curb.

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**8. Connect on-site buildings, parking, and other improvements with identifiable streets and drive aisles in Residential, Multiple-Use, and Commercial Districts.**

A. Parking lot drive aisles that link public streets and/or private streets with parking stalls shall be designed as private streets, unless one of the following is met:

1. The parking lot drive aisle is less than 100 feet long;
2. The parking lot drive aisle serves 2 or less residential units; or
3. The parking lot drive aisle provides direct access to angled or perpendicular parking stalls.

B. Private streets shall meet the following standards:

1. Private streets serving non-residential uses and residential uses having five or more units shall have raised curbs and minimum five (5) foot wide unobstructed sidewalks on both sides.
2. Private streets serving less than five (5) units shall have raised curbs and a minimum five (5) foot wide unobstructed sidewalk on at least one side.

**9. Ground floor uses in parking structures.** Parking structures located on Major Pedestrian Routes shall incorporate one or more active retail or commercial uses other than parking at ground level along the entire portion of the structure fronting onto such routes. Compliance to this standard is not required when a semi-subterranean parking structure is proposed, provided that the height of such structures, or portions thereof, is not greater than three and one-half (3 1/2) feet above the elevation of the adjoining walkway or sidewalk.

**60.05.25. Landscape, Open Space, and Natural Areas Design Standards.**  
Unless otherwise noted, all standards apply in all zoning districts.

**1. Minimum Common Open Space Requirements for Multi-Family Development Consisting of ten (10) or more units.**

- A. Common open space shall consist of active, passive, or both open space areas, and shall be provided as follows:
  - 1. One hundred fifty (150) square feet for each unit containing 500 or less square feet of gross floor area.
  - 2. Two hundred fifty (250) square feet for each unit containing more than 500 square feet and up to 1200 square feet of gross floor area.
  - 3. Three hundred fifty (350) square feet for each unit containing more than 1200 square feet of gross floor area.
- B. At least twenty-five (25) percent of the total required open space area shall be active open space.
- C. For the purposes of this Section, environmentally sensitive areas shall be counted towards the minimum common open space requirement. Aboveground landscaped water quality treatment facilities shall be counted toward the minimum common open space requirement.
- D. For the purposes of this Section, vehicular circulation areas and parking areas shall not be considered common open space.
- E. For the purposes of this section, individual exterior spaces such as outdoor patios and decks constructed to serve individual units shall not be considered common open space.
- F. Common open space shall not abut a collector or greater classified street as identified in the City's adopted Functional Classification Plan, unless that common open space shall be allowed adjacent to these street classifications where separated from the street by a constructed barrier at least three (3) feet in height.

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- G. Common open space shall be no smaller than 400 square feet in area, and shall have minimum length and width dimensions of 20 feet.
- H. In phased developments, common open space shall be provided in each phase of the development consistent with or exceeding the requirements for the size and number of dwelling units proposed.
- I. Active common open spaces shall be included in all developments, and shall include at least two (2) of the following improvements:
  - 1. A bench or other seating with a pathway or other pedestrian way;
  - 2. A water feature such as a fountain;
  - 3. A children's play structure;
  - 4. A gazebo;
  - 5. Clubhouse;
  - 6. Tennis courts
  - 7. An indoor or outdoor sports court; or
  - 8. An indoor or outdoor swimming and/or wading pool.
  - 9. Plaza
- J. The decision-making authority shall be authorized to consider other improvements in addition to those provided under subsection I, provided that these improvements provide a similar level of active common open space usage.

**2. Minimum Landscaping Requirements for Required Front Yards and Required Common Open Space in Multiple Family Residential Zones**

- A. All front yard areas in the R-3.5, R-2 and R-1 districts, and required common open space areas in the R-2 and R-1 districts not occupied by structures, walkways, driveways, plazas or parking spaces shall be landscaped.
- B. Landscaping shall include live plants or landscape features such as fountains, ponds or other landscape elements. Bare gravel, rock, bark and similar materials are not a substitute for plant cover, and shall be limited to no more than twenty-five (25) percent of the landscape area.



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- C. All street-facing elevations shall have landscaping along their foundation. When a porch obstructs a foundation, landscaping shall be installed along the outer edge of the porch. This landscaping requirement shall not apply to portions of the building facade that provide access for pedestrians or vehicles to the building, or for plazas adjacent to the building. The foundation landscaping shall meet the following minimum standards:
  - 1. The landscaped area shall be at least three (3) feet wide; and,
  - 2. For every three (3) lineal feet of foundation, an evergreen shrub having a minimum mature height of twenty-four (24) inches shall be planted; and,
  - 3. Groundcover plants shall be planted in the remainder of the landscaped area.

**3. Minimum Landscaping Requirements for Conditional Uses in Residential Districts, and for Developments in Multiple-Use, Commercial and Industrial Districts**

- A. A minimum portion of the total gross lot area shall be landscaped:
  - 1. Conditional uses in residential districts, and all uses in commercial and industrial districts, fifteen (15) percent;
  - 2. All uses in multiple-use districts, ten (10) percent.
  - 3. Environmentally sensitive areas shall be counted towards the minimum landscape requirement. Aboveground landscaped water quality treatment facilities shall be counted toward the minimum landscape requirement.
- B. The following minimum planting requirements for required landscaped areas shall be complied with. These requirements shall be used to calculate the total number of trees and shrubs to be included within the required landscape area:

60.05.25.3.B.

1. One (1) tree shall be provided for every eight hundred (800) square feet of required landscaped area. Evergreen trees shall have a minimum planting height of six (6) feet. Deciduous trees shall have a minimum caliper of 1.5 inches at time of planting.
  2. One (1) evergreen shrub having a minimum mature height of forty-eight (48) inches shall be provided for every four hundred (400) square feet of required landscaped area.
  3. Live ground cover consisting of low-height plants, or shrubs, or grass shall be planted in the portion of the landscaped area not occupied by trees or evergreen shrubs. Bare gravel, rock, bark or other similar materials may be used, but are not a substitute for ground cover plantings, and shall be limited to no more than twenty-five (25) percent of the required landscape area.
- C. A hard surface pedestrian plaza or combined hard surface and soft surface pedestrian plaza, if proposed shall be counted towards meeting the minimum landscaping requirement, provided that the hard-surface portion of the plaza shall not exceed twenty-five (25) percent of the minimum landscaping requirement for conditional uses in residential districts, and shall be comprised of the following:
1. Brick pavers, or stone, scored, or colored concrete; and,
  2. One (1) tree having a minimum mature height of twenty (20) feet for every three hundred (300) square feet of plaza square footage; and,
  3. Street furniture including but not limited to benches, tables, and chairs; and,
  4. Pedestrian scale lighting consistent with the City's Technical Lighting Standards; and,
  5. Trash receptacles.

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- D. All building elevations visible from and within 200 feet of a public street that do not have windows on the ground floor shall have landscaping along their foundation, which shall be counted toward the minimum landscaped requirement. This landscaping requirement shall not apply to portions of the building facade that provide access for pedestrians or vehicles to the building, for plazas adjacent to the building, or when the building is within three (3) feet of the property line. The foundation landscaping shall be at least five (5) feet wide; and shall be comprised of the following:
1. One (1) tree having a minimum planting height of six (6) feet shall be planted for every thirty (30) lineal feet of foundation.
  2. One (1) shrub having a minimum mature height of twenty-four (24) inches shall be planted for every three (3) lineal feet of foundation and shall be planted between required trees; and,
  3. Groundcover plants shall be planted in the remainder of the landscaped area not occupied by required trees and shrubs, and shall not be planted in rows, but in a staggered manner for more effective covering.
4. **Public Open Space.** When, public open space is proposed by an applicant, it shall be designed to provide passive open space, active open space or both for the enjoyment of the general public unless otherwise indicated in an open space master plan approved by the City, THPRD or other jurisdiction. For the purposes of this Section, public open space is defined as the portion of a site that is developed for use by the general public, but is not dedicated and is kept under the ownership and control of the private property owner. Passive open space is where human activities are limited to defined walking and seating areas. Active open space is where human activities include recreational and social opportunities such as play fields, playgrounds, swimming pools, plazas and other recreational facilities. Public open space may be improved for passive or active recreational uses, however, it shall not include environmentally sensitive areas such as a wetland, riparian area, or significant tree grove. Public open space may be counted towards the minimum landscape requirement, provided the following is met unless otherwise approved in an open space master plan:

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- A. The public open space is located at the perimeter of a parent parcel abutting public right-of-way; or,
- B. If not located at the perimeter of the parent parcel, the public open space shall be visible from the public right-of-way, and shall be accessible via a minimum five (5) foot wide pedestrian pathway.
- C. Pedestrian-scale lighting consistent with the City's Technical Lighting Standards shall be provided.

**5. Retaining Walls.** Retaining walls greater than six (6) feet in height or longer than fifty (50) lineal feet used in site landscaping or as an element of site design shall be architecturally treated with contrasting scoring, or texture, or pattern, or off-set planes, or different applied materials, or any combination of the foregoing, and shall be incorporated into the overall landscape plan, or shall be screened by a landscape buffer. Materials used on retaining walls should be similar to materials used in other elements of the landscape plan or related buildings, or incorporate other landscape or decorative features exclusive of signs. If screening by a landscape buffer is utilized, a buffer width of at least five (5) feet is required, landscaped to the B3-High Screen Buffer standards.

**6. Fences and Walls**

- A. Fences and walls shall be constructed of any materials commonly used in the construction of fences and walls such as wood, stone, rock, or brick, or other durable materials.
- B. Chain link fences are acceptable as long as the fence is coated and includes slats made of vinyl, wood or other durable material. Slat may not be required when visibility into features such as open space, natural areas, parks and similar areas is needed to assure visual security, or into on-site areas in industrial zones that require visual surveillance.
- C. Masonry walls shall be a minimum of six inches thick. All other walls shall be a minimum of three inches thick.

60.05.25.6.

- D. For manufacturing, assembly, fabricating, processing, packing, storage and wholesale and distribution activities which are the principle use of a building in industrial districts, the preceding standards apply when visible from and within 200 feet of a public street.
- E. Fences and walls:
  - 1. May not exceed three feet in height in a required front yard along streets and eight feet in all other locations;
  - 2. May be permitted up to six feet in a required front yard along designated collector and arterial streets.

**7. Minimize significant changes to existing on-site surface contours at residential property lines.**

- A. When grading a site within twenty-five (25) feet of a property line within or abutting any residentially zoned property, the on-site surface contours shall observe the following:
  - 1. 0 to 5 feet from property line. Maximum of two (2) foot slope differential from the existing or finished slope of the abutting property, whichever is applicable.
  - 2. More than 5 feet and up to and including 10 feet from property line. Maximum of four (4) foot slope differential from the existing or finished slope of the abutting property, whichever is applicable.
  - 3. More than 10 feet and up to and including 15 feet from property line. Maximum of six (6) foot slope differential from the existing or finished slope of the abutting property, whichever is applicable.
  - 4. More than 15 feet and up to and including 20 feet from property line. Maximum of eight (8) foot slope differential from the existing or finished slope of the abutting property, whichever is applicable.
  - 5. More than 20 feet and up to and including 25 feet from property line. Maximum of ten (10) foot slope differential from the existing or finished slope of the abutting property, whichever is applicable.

60.05.25.7.

- B. Notwithstanding the requirements of subsection A.1. above, grading within 25 feet of a property line shall not change the existing slopes by more than ten percent within a tree root zone of an identified significant grove or tree, or an identified historic tree located on an abutting property unless evidence provided by a certified arborist supports additional grading that will not harm the subject grove or tree.
8. **Integrate water quality, quantity, or both facilities.** Non-vaulted surface stormwater detention and treatment facilities having a side slope greater than 2:1 shall not be located between a street and the front of an adjacent building.
9. **Natural Areas.** Development on sites with City-adopted natural resource features such as streams, wetlands, and rock outcroppings, shall be preserved to maintain the resource without encroachment into any required resource buffer standard unless otherwise authorized by other City or CWS requirements.
10. **Landscape Buffering Requirements.** All new development and redevelopment in the City subject to Design Review shall comply with the landscape buffering requirements of Table 60.05-2 and the following standards. For purposes of this Section, a landscape buffer is required along the side and rear of properties between different zoning district designations. A landscape buffer is required for non-residential land uses and parks in residential zoning districts. Both buffering standards and side and rear building setback requirements shall be met. Only landscaping shall be allowed in the landscape buffer areas. Buffer areas and building setback standards are measured from the property line, they are not additive. Where a yard setback width is less than a landscape buffer width, the yard setback width applies to the specified buffer designation (B1, B2, or B3 as appropriate). A landscape buffer width cannot exceed a minimum yard setback dimension. In addition, the buffer area and landscape standard are intended to be continuously applied along the property line, except as authorized under Section 60.05.25.4.
- A. **Applicability of Buffer Standards.**
1. The buffer standards shall not be applicable to individual single-family buildings on individual parcels.

60.05.25.10.A.1.

2. The buffer standards shall not apply to areas where emergency access is required.
3. The buffer standards shall not apply to areas where a public utility easement exists. This exemption only applies to trees and does not exempt the requirement of shrubs and ground cover.
4. The buffer standards shall not apply along property lines where a non-residential use is already buffered by a natural feature or an open space dedication, if such a natural buffer or dedication is at least 40 feet in width, or if the width of the natural feature or open space dedication and the density and quality of landscaping meet or exceed the applicable landscape buffer standard.

**B. B1-Low Screen Buffer.** This buffer is intended to provide a minimal amount of transitional screening between zones. This buffer consists of one (1) tree having a minimum planting height of six (6) feet for every thirty (30) lineal feet of buffer width; and 2) live ground cover consisting of low-height plants, or shrubs, or grass proportionately spaced between the trees with actual spacing for low height plants or shrubs dependent upon the mature spread of the vegetation. Bare gravel, rock, bark or other similar materials may be used, but are not a substitute for ground cover plantings, and shall be limited to no more than twenty-five (25) percent of the required buffer area. Deciduous trees having a minimum two-inch caliper at time of planting may be planted in the B1 buffer required for across the street.

**C. B2-Medium Screen Buffer.** This buffer is intended to provide a moderate degree of transitional screening between zones. This buffer consists of live ground cover consisting of low-height plants, or shrubs, or grass, and 1) one (1) tree having a minimum planting height of six (6) feet for every thirty (30) lineal feet of buffer width; 2) evergreen shrubs which reach a minimum height of four (4) to six (6) feet within two (2) years of planting planted proportionately between the required evergreen trees. Live ground cover consisting of low-height plants, or shrubs, or grass shall be planted in the portion of the landscaped area not occupied by trees or evergreen shrubs. Actual spacing for low height plants or shrubs or evergreen

60.05.25.10.C.

shrubs shall be dependent upon the mature spread of the selected vegetation. Bare gravel, rock, bark or other similar materials may be used, but are not a substitute for ground cover plantings, and shall be limited to no more than twenty-five (25) percent of the required landscape area. Deciduous trees having a minimum two-inch caliper at time of planting may be planted in the B2 buffer required for across the street.

**D. B3-High Screen Buffer.** This buffer is intended to provide a high degree of visual screening between zones. This buffer consists of minimum six (6)-foot high fully sight obscuring fences or walls with an adjoining landscape area on the interior of the fence when the fence is proposed within three (3) feet of the property line. If the fence is proposed to be setback from the property line more than three feet, the landscaping shall be on the exterior of the fence within a landscape area a minimum of five (5) feet in width, with adequate provision of access and maintenance of the landscaped area. The height of the fence shall be measured from the property on which the fence is to be located, and, if located on a wall, shall be in addition to the height of the wall. The landscape area shall be planted with one (1) tree having a minimum planting height of six (6) feet for every thirty (30) lineal feet of buffer width, filled between with evergreen shrubs which reach a minimum height of four (4) to six (6) feet within two (2) years of planting. Live ground cover consisting of low-height plants, or shrubs, or grass shall be planted in the portion of the landscaped area not occupied by trees or evergreen shrubs. Actual spacing for low height plants or shrubs or evergreen shrubs shall be dependent upon the mature spread of the selected vegetation. Bare gravel, rock, bark or other similar materials may be used, but are not a substitute for ground cover plantings, and shall be limited to no more than twenty-five (25) percent of the required landscape area.

**E. Changes to Buffer Widths and Standards.** Required buffer widths and buffer standards are the minimum requirements for buffering and screening. Changes in buffer widths and standards shall be limited to the following:

1. A request for a reduction in buffer width when a B3 buffer standard is required shall be reviewed through the public hearing process;



60.05.25.10.E.

2. A request for a reduction in the buffer width when a B2 or B1 buffer standard is required and the applicant does not want to change the buffer standard, or when the reduction in buffer width is greater than five (5) feet, shall be reviewed through the public hearing process; and,
3. A request for a reduction in the buffer width when a B2 or B1 buffer standard is required and the reduction in buffer width is five (5) feet or less, shall be reviewed through administrative authorization provided that the next highest buffer standard is implemented.

Requests for changes in buffer widths and buffer standards shall only be authorized because of physical site constraints, or unique building or site design. An applicant shall be required to provide an adequate detailed written and plan demonstration of the physical site constraints or unique building or site design including, but not limited to, an enhanced site plan, or cross-section detail drawings, or manipulated aerial photography.

- F. Landscaping Buffering Installation.** All required buffering shall be installed prior to occupancy permit issuance.
- G. Pedestrian Plazas in Required Buffer Areas for Non-Residential Development.** For non-residential development in non-residential zoning districts, in which the building is proposed to be placed at the required front yard buffer line, concrete or brick pavers shall be authorized in place of required live groundcover, or bark, or grass, for the length of the building for the front yard only; provided that required trees are still installed, the paved area is connected to the public sidewalk, and pedestrian amenities including but not limited to benches or tables, are provided.

**60.05.30. Lighting Design Standards.** Unless otherwise noted, all standards apply in all zoning districts.

**1. Adequate on-site lighting and minimize glare on adjoining properties.**

- A. Lighting shall be provided at lighting levels for development and redevelopment in all zoning districts consistent with the City's Technical Lighting Standards.
- B. Lighting shall be provided in vehicular circulation areas and pedestrian circulation areas.
- C. Lighting shall be provided in pedestrian plazas, if any developed.
- D. Lighting shall be provided at building entrances.
- E. Canopy lighting shall be recessed so that the bulb or lens is not visible from a public right-of-way.

**2. Pedestrian-scale on-site lighting.**

- A. Pole-mounted Luminaires shall comply with the City's Technical Lighting Standards, and shall not exceed a maximum of:
  - 1. Fifteen (15) feet in height for on-site pedestrian paths of travel.
  - 2. Twenty (20) feet in height for on-site vehicular circulation areas for residential uses in residential zoning districts.
  - 3. Thirty (30) feet in height for on-site vehicular circulation areas in non-residential zoning districts.
  - 4. Fifteen (15) feet for the top deck of non-covered parking structures.
  - 5. The height of the poles for on-site pedestrian ways and on-site vehicular circulation areas shall be measured from the site's finished grade.

60.05.30.2.A.

6. The height of the poles on the top deck of non-covered parking structures shall be measured from the finished floor elevation of the top deck.
7. The poles and bases for pole-mounted luminaires shall be finished or painted a non-reflective color.

- B. Non-pole-mounted luminaires shall comply with the City's Technical Lighting Standards.
- C. Lighted bollards when used to delineate on-site pedestrian and bicycle pathways shall have a maximum height of forty-eight (48) inches.

**60.05.35. Building Design and Orientation Guidelines.** Unless otherwise noted, all guidelines apply in all zoning districts.

**1. Building Elevation Design Through Articulation and Variety**

- A. Residential buildings should be of a limited length in order to avoid undifferentiated building elevations, reduce the mass of individual buildings, and create a scale of development that is pedestrian friendly and allow circulation between buildings by pedestrians. (Standard 60.05.15.1.A.)
- B. Building elevations should be varied and articulated to provide visual interest to pedestrians. Within larger projects, variations in architectural elements such as: building elevations, roof levels, architectural features, and exterior finishes should be provided. (Standard 60.05.15.1.A and B)
- C. To balance horizontal features on longer building elevations, vertical building elements, such as building entries, should be emphasized. (Standard 60.05.15.1.B)
- D. Special attention should be given to designing a primary building entrance that is both attractive and functional. Primary entrances should incorporate changes in mass, surface, or finish to emphasize the entrance. (Standard 60.05.15.1.B)

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- E. Excluding manufacturing, assembly, fabricating, processing, packing, storage and wholesale and distribution activities which are the principle use of a building in industrial districts, buildings should promote and enhance a comfortable pedestrian scale and orientation. (Standard 60.05.15.1.B)
- F. Building elevations visible from and within 200 feet of an adjacent street or major parking area should be articulated with architectural features such as windows, dormers, off-setting walls, alcoves, balconies or bays, or by other design features that reflect the building's structural system. Undifferentiated blank walls facing a street or major parking area should be avoided. (Standards 60.05.15.1.B and C)
- G. Building elevations visible from and within 100 feet of an adjacent street where the principle use of the building is manufacturing, assembly, fabricating, processing, packing, storage and wholesale and distribution activities in an industrial zoning district, should be articulated with architectural features such as windows, dormers, off-setting walls, alcoves, balconies or bays, or by other design features that reflect the building's structural system. Undifferentiated blank walls facing a street should be avoided. (Standards 60.05.15.1.B and C)

## **2. Roof Forms as Unifying Elements**

- A. Roof forms should be distinctive and include variety and detail when viewed from the street. Sloped roofs should have a significant pitch and building focal points should be highlighted. (Standards 60.05.15.2.A and B)
- B. Flat roofs should include distinctive cornice treatments. (Standard 60.05.15.2.C)
- C. Additions to existing structures which involve the addition of new roof area should respect the roof form and material of the existing structure. (Standard 60.05.15.2.D)

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**3. Primary building entrances.**

- A. Excluding manufacturing, assembly, fabricating, processing, packing, storage and wholesale and distribution activities which are the principle use of a building in industrial districts, the design of buildings should incorporate features such as arcades, roofs, porches, alcoves, porticoes, awnings, and canopies to protect pedestrians from the rain and sun. (Standard 60.05.15.3)
- B. Special attention should be given to designing a primary building entrance that is both attractive and functional. Primary entrances should incorporate changes in mass, surface, or finish to emphasize the entrance. (Standard 60.05.15.3)

**4. Exterior Building Materials**

- A. Exterior building materials and finishes should convey an impression of permanence and durability. Materials such as masonry, stone, wood, terra cotta, and tile are encouraged. Windows are also encouraged, where they allow views to interior activity areas or displays. (Standard 60.05.15.4.A)
- B. Excluding development in Industrial zones, where masonry is used for exterior finish, decorative patterns (other than running bond pattern) should be considered, especially at entrances, building corners and at the pedestrian level. These decorative patterns may include multi-colored masonry units, such as brick, tile, stone, or cast stone, in a layered or geometric pattern, or multi-colored ceramic tile bands used in conjunction with materials such as concrete. (Standards 60.05.15.4.B and C)

**5. Screening of Equipment.** All roof, surface, and wall-mounted mechanical, electrical, communications, and service equipment should be screened from view from adjacent public streets by the use of parapets, walls, fences, enclosures, dense evergreen foliage, or by other suitable means. (Standards 60.05.15.5.A through C)

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**6. Building Location and Orientation in Multiple Use and Commercial districts.**

- A. Buildings should be oriented and located within close proximity to public streets and public street intersections. The overall impression, particularly on Class 1 Major Pedestrian Routes, should be that architecture is the predominant design element over parking areas and landscaping. (Standard 60.05.15.6.A and B)
- B. The design of buildings located at the intersection of two streets should consider the use of a corner entrance to the building. (Standard 60.05.15.6.B)
- C. On Class 1 Major Pedestrian Routes, building entrances should be oriented to streets, or have reasonably direct pedestrian connections to streets and pedestrian and transit facilities. (Standard 60.05.15.6.C)

**7. Building Scale along Major Pedestrian Routes.**

- A. Architecture helps define the character and quality of a street. Along Major Pedestrian Routes, low height, single story buildings located at the right-of-way edge are discouraged. (Standard 60.05.15.7.A)
- B. Building heights at the right-of-way edge should help form a sense of street enclosure, but should not create a sheer wall out of scale with pedestrians. Building heights at the street edge should be no higher than sixty (60) feet without the upper portions of the building being set back from the vertical building line of the lower building stories. (Standard 60.05.15.7.A)

**8. Ground Floor Elevations On Commercial And Multiple Use Buildings.**

- A. Excluding residential only development, ground floor building elevations should be pedestrian oriented and provide views into retail, office or lobby space, pedestrian entrances or retail display windows. (Standard 60.05.15.8.A)

60.05.35.8.

- B. Except those used exclusively for residential use, ground floor elevations that are located on a Major Pedestrian Route, sidewalk, or other space where pedestrians are allowed to walk should provide weather protection for pedestrians on building elevations. (Standard 60.05.15.8.B)

**60.05.40. Circulation and Parking Design Guidelines.** Unless otherwise noted, all guidelines apply in all zoning districts.

- 1. Connections to public street system.** The on-site circulation system and the abutting street system should provide for efficient access and circulation, and should connect the project to abutting streets. (Standard 60.05.20.1)
- 2. Loading area, solid waste facilities, and similar improvements.**
  - A. On-site service, storage and similar activities should be designed and located so that these facilities are screened from an abutting public street. (Standard 60.05.20.2)
  - B. Except in industrial districts, loading areas should be designed and located so that these facilities are screened from an abutting public street, or are shown to be compatible with local business operations. (Standard 60.05.20.2.)
- 3. Pedestrian circulation.**
  - A. Pedestrian connections should be made between on-site buildings, parking areas, and open spaces. (Standard 60.05.20.3.A)
  - B. Pedestrian connections should connect on-site facilities to abutting pedestrian facilities and streets unless separated by barriers such as natural features, topographical conditions, or structures. (Standard 60.05.20.3.A)
  - C. Pedestrian connections should link building entrances to nearby streets and other pedestrian destinations. (Standard 60.05.20.3.B)

60.05.40.3.

- D. Pedestrian connections to streets through parking areas should be evenly spaced and separated from vehicles (Standard 60.05.20.3.C through E)
  - E. Excluding manufacturing, assembly, fabricating, processing, packing, storage and wholesale and distribution activities which are the principle use of a building in industrial districts, pedestrian connections designed for high levels of pedestrian activity should be provided along all streets. (Standard 60.05.20.3.A through H)
  - F. Pedestrian connections should be designed for safe pedestrian movement and constructed of hard durable surfaces. (Standards 60.05.20.3.F through G)
4. **Street frontages and parking areas.** Landscape or other screening should be provided when surface parking areas are located along public streets. (Standard 60.05.20.4)
5. **Parking area landscaping.** Landscape islands and a tree canopy should be provided to minimize the visual impact of large parking areas. (Standard 60.05.20.5.A through D)
6. **Street frontages in Multiple Use districts.**
- A. Surface parking should occur to the side or rear of buildings and should not occur at the corner of two Major Pedestrian Routes. (Standard 60.05.20.6)
  - B. Surface parking areas should not be the predominant design element along Major Pedestrian Routes and should be located on the site to safely and conveniently serve the intended users of the development, without precluding future site intensification. (Standard 60.05.20.6)
7. **Sidewalks along streets and primary building elevations in Multiple Use and Commercial districts.**
- A. Pedestrian connections designed for high levels of pedestrian activity should be provided along all streets. (Standard 60.05.20.7.A)



60.05.40.7.

- B. Pedestrian connections should be provided along primary building elevations having building and tenant entrances. (Standard 60.05.20.7.B.)

**8. Connect on-site buildings, parking, and other improvements with identifiable streets and drive aisles in Residential, Multiple Use, and Commercial districts.**

- A. On-site circulation should be easily recognized and identified, and include a higher level of improvements such as curbs, sidewalks, and landscaping compared to parking lot aisles. (Standard 60.05.20.8)
- B. Long, continuous parking aisles should be avoided if possible, and landscaped as necessary to minimize the visual impact. (Standard 60.05.20.8)

**9. Parking Structures in Multiple-Use Districts.** Active ground floor uses should be incorporated in parking structures, particularly on elevations facing Major Pedestrian Routes. (Standard 60.05.20.9)

**60.05.45. Landscape, Open Space and Natural Areas Design Guidelines.** Unless otherwise noted, all guidelines apply in all zoning districts.

**1. Common Open Space for Residential Uses in Residential Districts**

- A. Common open spaces should be provided that are sized and designed for anticipated users, and are located within walking distance for residents and visitors, and should be integrated into the overall landscape plan. (Standard 60.05.25.1)
- B. Common open spaces should be available for both passive and active use by people of all ages, and should be designed and located in order to maximize security, safety, and convenience. (Standard 60.05.25.1)
- C. Common open spaces should be free from all structural encroachments unless a structure is incorporated into the design of the common open space such as a play structure. (Standard 60.05.25.1)

60.05.45.1.

- D. Common open space should be located so that windows from living areas, excluding bedrooms and bathrooms, of a minimum of four (4) residences face on to the common open space. (Standard 60.05.25.1)

**2. Minimum landscaping in Residential districts.**

- A. Landscape treatments utilizing plants, hard-surface materials, or both should be provided in the setback between a street and a building. The treatment should enhance architectural elements of the building and contribute to a safe, interesting streetscape. (Standard 60.05.25.2.A through C)
- B. Landscaping should soften the edges of buildings and parking areas, add aesthetic interest, and generally increase the attractiveness of a development and its surroundings. (Standard 60.05.25.2.A through C)

**3. Minimum landscaping for conditional uses in Residential districts and for developments in Multiple Use, Commercial, and Industrial Districts.**

- A. Landscaping should soften the edges of buildings and parking areas, add aesthetic interest and generally increase the attractiveness of a development and its surroundings. (Standard 60.05.25.3.A, B, and D)
- B. Plazas and common areas designed for pedestrian traffic should be surfaced with a combination of landscape and decorative pavers or decorative concrete. (Standard 60.05.25.3.C)
- C. Use of native vegetation should be emphasized for compatibility with local and regional climatic conditions. (Standard 60.05.25.3.A and B)
- D. Existing mature trees and vegetation should be retained and incorporated, when possible, into the site design of a development. (Standard 60.05.25.3.A and B)
- E. A diversity of tree and shrub species should be provided in required landscaped areas. (Standard 60.05.25.3)

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4. **Public Open Space.** Open space available for public use but in private ownership should be accessible to the public, designed for safety, include active, passive or both spaces and improvements, but should not include environmentally sensitive areas. (Standard 60.05.25.4)
5. **Retaining Walls.** Retaining walls over six (6) feet in height or greater than fifty (50) feet in length should be architecturally treated, incorporated into the overall landscape plan, or screened by landscape material. (Standard 60.05.25.5)
6. **Fences and Walls**
  - A. Fences and walls should be constructed of attractive, durable materials. (Standard 60.05.25.6)
  - B. Fences and walls constructed in front yards adjacent to public streets should provide the opportunity to view into the setback from the street unless high traffic volumes or other conflicts warrant greater security and protection. (Standard 60.05.25.6)
7. **Changes to existing on-site surface contours at residential property lines.** The perimeters of properties should be graded in a manner to avoid conflicts with abutting residential properties such as drainage impacts, damage to tree root zones, and blocking sunlight. (Standard 60.05.25.7)
8. **Integrate water quality, quantity, or both facilities.** Above-ground stormwater detention and treatment facilities should be integrated into the design of a development site and, if visible from a public street, should appear as a component of the landscape design. (Standard 60.05.25.8)
9. **Landscape Buffering and Screening**
  - A. A landscape buffer should provide landscape screening, and horizontal separation between different zoning districts and between non-residential land uses and residential land uses. The buffer standards shall not be applicable along property lines where existing natural features such as flood plains, wetlands, riparian zones and identified significant groves already provide a high degree of visual screening. (Standard 60.05.25.9)

60.05.45.9.

- B. When potential conflicts exist between adjacent zoning districts, such as industrial uses adjacent to residential uses, landscape screening should be dense, and the buffer width maximized. When potential conflicts are not as great, such as a commercial zoning district abutting an industrial zoning district, less dense landscape screening and narrower buffer width is appropriate. (Standard 60.05.25.9)
- C. Landscape buffering should consist of a variety of trees, shrubs and ground covers designed to screen potential conflict areas and complement the overall visual character of the development and adjacent neighborhood. (Standard 60.05.25.9)

- 10. **Natural Areas.** Natural features that are indigenous to a development site, such as streams, wetlands, rock outcroppings, and mature trees should be preserved, enhanced and integrated when reasonably possible into the development plan. (No companion standard)

**60.05.50. Lighting Design Guidelines.** Unless otherwise noted, all guidelines apply in all zoning districts.

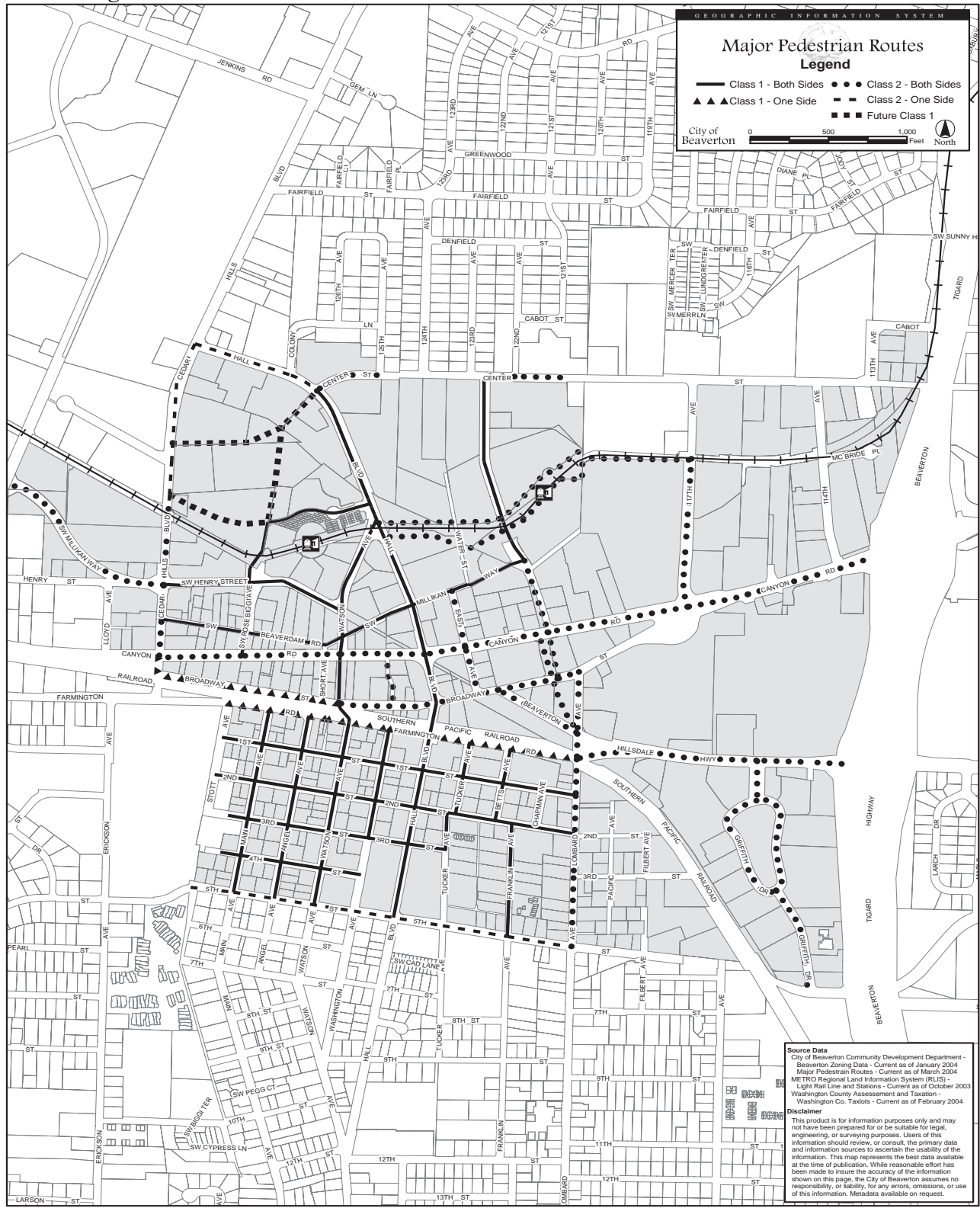
- 1. Lighting should be utilized to maximize safety within a development through strategic placement of pole-mounted, non-pole mounted and bollard luminaires. (Standard 60.05.30.1 and 2)
- 2. Pedestrian scale lighting should be an integral part of the design concept except for industrial projects. Poles and fixtures for pole-mounted lighting should be of a consistent type throughout the project. The design of wall-mounted lighting should be appropriate to the architectural design features of the building. (Standard 60.05.30.2)
- 3. Lighting should minimize direct and indirect glare impacts to abutting and adjacent properties and streets by incorporating lens shields, shades or other measures to screen the view of light sources from residences and streets. (Standard 60.05.30.1 and 2)
- 4. On-site lighting should comply with the City's Technical Lighting Standards. (Standard 60.05.30.1 and 2)

# SPECIAL REQUIREMENTS

## Design Review Principles, Standards, and Guidelines

### 60.05.55 Major Pedestrian Route Maps.

#### 1. Regional Center



# SPECIAL REQUIREMENTS

## Design Review Principles, Standards, and Guidelines

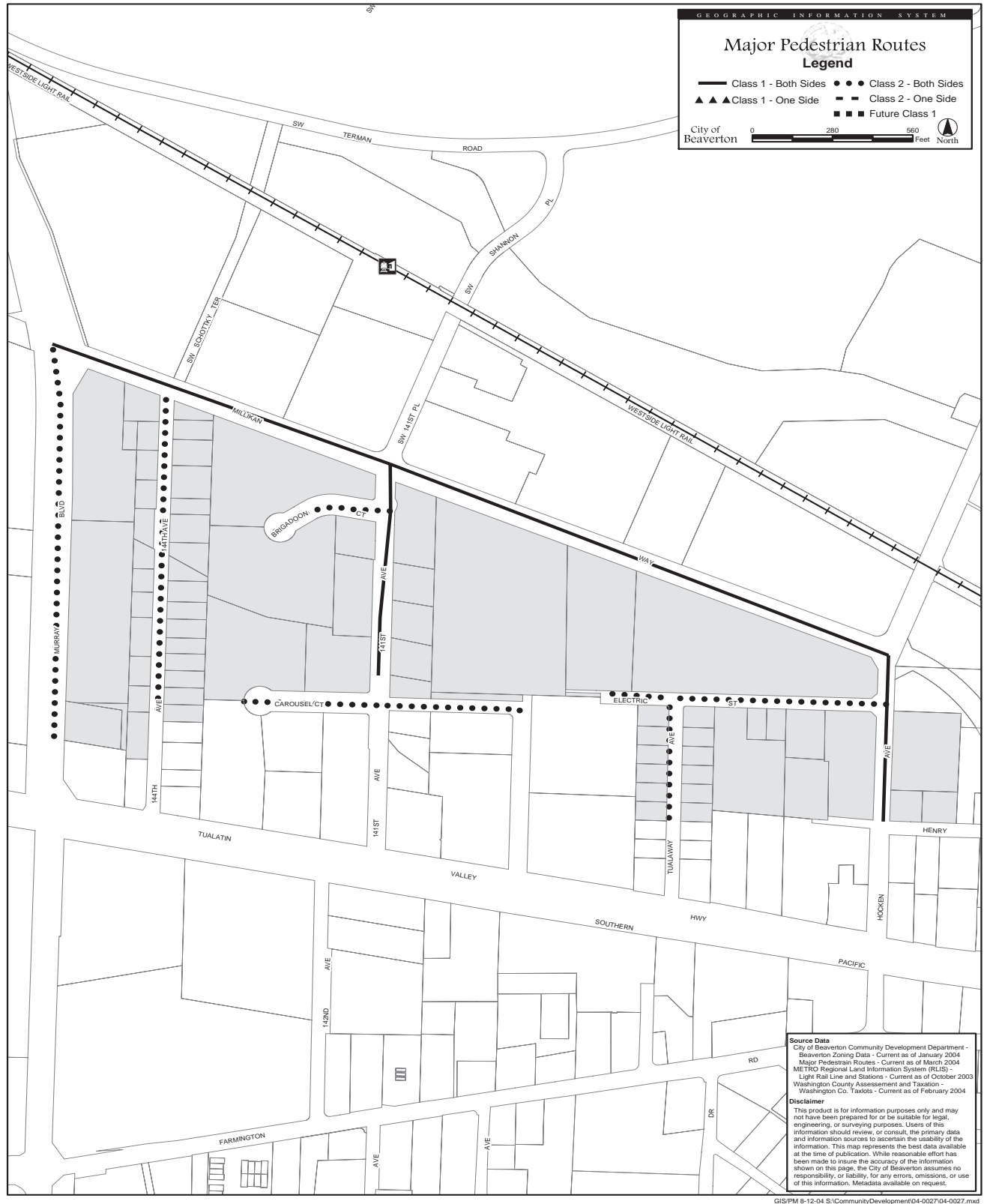
### 60.05.55.2. Town Center



# SPECIAL REQUIREMENTS

## Design Review Principles, Standards, and Guidelines

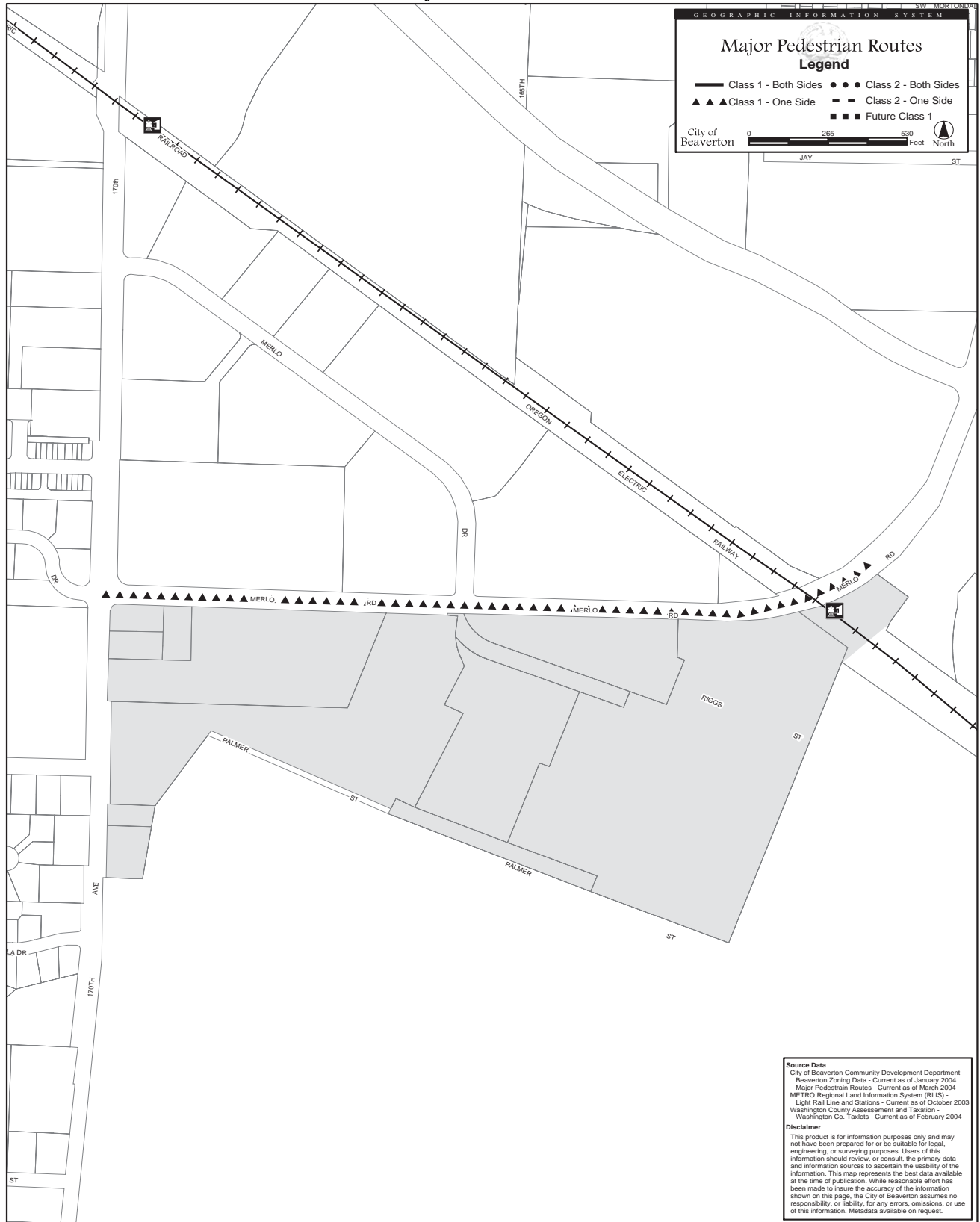
### 60.05.55.3. South Tek Station Community



# SPECIAL REQUIREMENTS

## Design Review Principles, Standards, and Guidelines

### 60.05.55.4. Merlo Station Community



GIS/PM 8-12-04 S:\CommunityDevelopment\04-0027\04-0027.mxd



**Table 60.05-1      TECHNICAL LIGHTING STANDARDS**

- A.    Types of Lighting.** The Technical Lighting Standards shall apply to bollard luminaire, pole-mounted luminaire, and non-pole-mounted luminaire.
- B.    Areas to Be Applied.** The roadways, access drives, parking lots, vehicle maneuvering areas, pathways and sidewalks of all new developments and building entrances shall be lighted in conformance to the technical lighting standards. These standards are not intended to apply to public street lighting.
- C.    Conformity of Lighting Plans to this Section.** All lighting plans submitted to the City shall comply with the standards of this table.
- D.    Standards.** The following standards are required of all exterior lighting:

  - 1.    When a bollard luminaire, or pole-mounted luminaire, or non-pole-mounted luminaire has total cutoff of an angle greater than ninety (90) degrees, the minimum required interior illumination, the maximum permitted illumination at the property line, and the maximum permitted height of Luminaires shall be as shown on Table 60.05-1.
  - 2.    When a bollard luminaire, or pole-mounted luminaire, or non-pole-mounted luminaire has total cutoff of light at an angle less than ninety (90) degrees and is located so that the bare light bulb, lamp, or light source is completely shielded from the direct view of an observer five (5) feet above the ground at the point where the cutoff angle intersects the ground, then the minimum permitted interior illumination, the maximum permitted illumination within five (5) feet of any property line, and the maximum permitted height of Luminaires is also shown on Table 60.05-1.
- E.    General Provisions.** Notwithstanding any other provision of this Section to the contrary:

  - 1.    Design Standards for Residential, Commercial, Industrial and Multiple-Use Districts:**

    - a.    No flickering or flashing lights shall be permitted.

60.05-1 (continued)

- b. No bare bulb lights shall be permitted for single-family attached development and multi-family attached development.
- c. No strobe lights shall be permitted.
- d. Light sources or Luminaires shall not be located within areas identified for screening or buffering except on pedestrian walkways.

**2. Special Design Standard for Residential Districts.** No exterior neon lights shall be permitted.

**3. Special Design Standard for Commercial and Multiple-Use Districts.** Exterior neon lights shall only be permitted when incorporated into the architectural design of a building.

**F. Exemption for Specified Public Outdoor Recreation Uses:**

- 1. Because of their unique requirements for nighttime visibility, public ball diamonds, public playing fields, and public tennis courts only, inclusive of facilities located on school district properties, are exempted from the exterior lighting standards of Sections 1 through 2 above. These outdoor recreational uses must meet all other requirements for this Section and of the Code.
- 2. The outdoor recreational uses specified above shall not exceed a maximum permitted post height of eighty (80) feet.
- 3. The outdoor recreational uses specified above may exceed a total cutoff angle of ninety (90) degrees, provided that the luminaire is shielded to prevent light and glare spillover to adjacent properties. The maximum permitted illumination at the property line or, if required, the interior buffering line, shall not exceed two (2) foot-candles.

Table 60.05-1 (continued)

Zoning District Type	Minimum Required Illumination (internal) in Foot-candles	Maximum Permitted Illumination (internal) in Foot-candles	Maximum Permitted Illumination at property line in Foot-candles	Maximum Permitted Height of Luminaires
Residential	1.0	0.7	TBD	0.5
	>90	>90	<90	Candles
				<p>Pole -mounted Luminaires (inclusive of above grade base and light fixture):</p> <ul style="list-style-type: none"> <li>◆ 15 feet for on-site pedestrian ways.</li> <li>◆ 20 feet for on-site vehicular circulation areas.</li> </ul> <p>Wall-mounted Luminaires for the lighting of pedestrian or vehicular circulation areas:</p> <ul style="list-style-type: none"> <li>◆ 20 feet above building finished grade.</li> </ul>
Commercial and Industrial	1.5	1.0	TBD	0.5
				<p>Pole -mounted Luminaires (inclusive of above grade base and light fixture):</p> <ul style="list-style-type: none"> <li>◆ 15 feet for on-site pedestrian ways.</li> <li>◆ 30 feet for on-site vehicular circulation areas.</li> <li>◆ 15 feet for the top deck of non-covered parking structures.</li> </ul> <p>Wall-mounted Luminaires for the lighting of pedestrian or vehicular circulation areas:</p> <ul style="list-style-type: none"> <li>◆ 15 feet above building finished grade for on-site pedestrian circulation areas</li> <li>◆ 30 feet above building finished grade for on-site vehicular circulations areas.</li> </ul>

Table 60.05-1 (continued)

Zoning District Type	Minimum Required Illumination (internal) in Foot-candles	Maximum Permitted Illumination (internal) in Foot-candles	Maximum Permitted Illumination at property line in Foot-candles	Maximum Permitted Height of Luminaires
Multiple Use:		TBD	TBD	Pole -mounted Luminaires (inclusive of above grade base and light fixture):
Residential only	0.7			<ul style="list-style-type: none"> <li>◆ 15 feet for on-site pedestrian ways for all development types.</li> <li>◆ 20 feet for on-site vehicular circulation areas for residential only and multipole use with residential.</li> <li>◆ 30 feet for on-site vehicular circulation areas for multiple use non-residential development and non-multiple use/non-residential development..</li> <li>◆ 15 feet for the top deck of non-covered parking structures for all development types.</li> </ul>
Multiple use with residential	0.7			
Multiple use non-residential development	1.5	1.0		<p>Wall-mounted Luminaires for the lighting of pedestrian or vehicular circulation areas:</p> <ul style="list-style-type: none"> <li>◆ 20 feet above building finished grade for residential only and multiple use with residential development.</li> <li>◆ 15 feet above building finished grade for multiple use non-residential development and non-multiple use / non-residential development.</li> </ul>
Non-multiple use / non residential development	1.5	1.0		

Minimum Landscape Buffer Requirements Between Contrasting Districts										SPECIAL REQUIREMENTS	
										Design Review Principles, Standards, and Guidelines	
District of Development	Location	Urban Low (R-10)	Urban Standard (R-7, R-5)	Urban Medium (R-4, R-3.5, R-2)	Urban High Density (R-1)	Commercial (CS, CV, GC, NS, OC)	Industrial (CI, IP, LI)	Station Area (SA-MU, SA-HDR)	Station Community (SC-MU, SC-HDR, SC-E)	Town Center (TC-MU, TC-HDR)	Regional Center (RC-OT, RC-TO, RC-E)
Urban Low (R-10)	Abutting	CU	5'/B1 CU	10'/B2 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU
	Across Street	N/A	5'/B1 CU	5'/B1 CU	10'/B1 CU	10'/B1 CU	10'/B1 CU	5'/B2 CU	5'/B2 CU	5'/B2 CU	5'/B2 CU
	Abutting	5'/B1 CU	N/A	10'/B2 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU	20'/B3 CU
Urban Standard (R-7, R-5)	Across Street	5'/B1 CU	N/A	5'/B1 CU	10'/B1 CU	10'/B1 CU	10'/B1 CU	10'/B2 CU	5'/B2 CU	5'/B2 CU	5'/B2 CU
	Abutting	10'/B2 CU/R-4	10'/B2 CU/R-4	N/A	10'/B2 CU/R-4	20'/B3	20'/B3	10'/B2	10'/B2	10'/B2	10'/B2
Urban Medium (R-4, R-3.5, R-2)	Across Street	5'/B1	5'/B1	N/A	5'/B1	10'/B1	10'/B1	5'/B2	5'/B2	5'/B2	5'/B2
	Abutting	20'/B3	20'/B3	10'/B2	N/A	20'/B3	20'/B3	10'/B1	10'/B1	10'/B1	10'/B1
Urban High Density (R-1)	Across Street	10'/B1	10'/B1	5'/B1	N/A	10'/B1	10'/B1	5'/B1	5'/B1	5'/B1	5'/B1
	Abutting	20'/B3	20'/B3	10'/B3	10'/B3	N/A	10'/B3	5'/B2	5'/B2	5'/B2	5'/B2
Commercial (CS, CV, GC, NS, OC)	Across Street	10'/B1	10'/B1	5'/B1	5'/B1	N/A	5'/B1	5'/B1	5'/B1	5'/B1	5'/B1
	Abutting	20'/B3	20'/B3	10'/B3	10'/B3	N/A	10'/B3	5'/B2	5'/B2	5'/B2	5'/B2
	Across Street	10'/B1	10'/B1	5'/B1	5'/B1	N/A	5'/B1	5'/B1	5'/B1	5'/B1	5'/B1
	Abutting	20'/B3	20'/B3	10'/B3	10'/B3	N/A	10'/B3	5'/B2	5'/B2	5'/B2	5'/B2

Minimum Landscape Buffer Requirements Between Contrasting Districts

District of Development	Location	Minimum Landscape Buffer Requirements Between Contrasting Districts							SPECIAL REQUIREMENTS		
		Urban Low (R-10)	Urban Standard (R-7, R-5)	Urban Medium (R-4, R-3.5, R-2)	Urban High Density (R-1)	Commercial (CS, CV, GC, NS, OC)	Industrial (CI, IP, LI)	Station Area (SA-MU, SA-HDR)	Station Community (SC-MU, SC-HDR, SC-E)	Town Center (TC-MU, TC-HDR)	Regional Center (RC-OT, RC-TO, RC-E)
Industrial (CI, IP, LI)	Abutting	20'/B3	20'/B3	20'/B3	20'/B3	10'/B3	N/A	20'/B3	20'/B3	20'/B3	20'/B3
	Across Street	10'/B2	10'/B2	10'/B2	10'/B2	5'/B2	N/A	10'/B2	10'/B2	10'/B2	10'/B2
Station Area (SA-MU, SA-HDR)	Abutting	20'/B3	20'/B3	10'/B3	10'/B3	10'/B3	20'/B3	N/A	10'/B2	10'/B2	10'/B2
	Across Street	10'/B2	10'/B2	5'/B2	5'/B2	5'/B2	10'/B2	N/A	5'/B1	5'/B1	5'/B1
Station Community (SC-MU, SC-HDR, SC-E)	Abutting	20'/B3	20'/B3	10'/B3	10'/B3	10'/B3	20'/B3	10'/B2	N/A	10'/B2	10'/B2
	Across Street	10'/B2	10'/B2	5'/B2	5'/B2	5'/B2	10'/B2	5'/B1	N/A	5'/B1	5'/B1
Town Center (TC-MU, TC-HDR, TC-MDR)	Abutting	20'/B3	20'/B3	10'/B3	10'/B3	10'/B3	20'/B3	10'/B2	10'/B2	N/A	10'/B2
	Across Street	10'/B2	10'/B2	5'/B2	5'/B2	5'/B2	10'/B2	5'/B1	N/A	N/A	5'/B1
Regional Center (RC-OT, RC-TO, RC-E)	Abutting	20'/B3	20'/B3	10'/B3	10'/B3	10'/B3	20'/B3	10'/B2	10'/B2	10'/B2	N/A
	Across Street	10'/B2	10'/B2	5'/B2	5'/B2	5'/B2	10'/B2	5'/B1	5'/B1	5'/B1	N/A

**SPECIAL REQUIREMENTS**  
**Design Review Principles, Standards,**  
**and Guidelines**

1. 5' / 10' / 20 ' = Buffer Width
2. B1 / B2 / B3 = Buffer Standard
3. N/A = Not Applicable
4. CU = Conditional Use
  
5. Buffering requirements are not in addition to building setback requirements.
  
6. \*Buffering requirements for Urban Low & Urban Standard and the R-4 zoning district in Urban Medium shall only be applied when a Conditional Use (CU) is proposed.
  
7. A minimum 20 foot buffer developed to a B3 standard is required for non-residential land uses and parks in residential zoning districts. Parks in all other zoning districts shall observe the minimum buffer standard specified in the buffer matrix.





